

LISTING OF THE CLAIMS

1. (Currently Amended) A method of configuring a process plant related to analyzing a plurality of process control instruments capable of use in a specific process control environment, comprising:

receiving, via a computer device comprising an input device and a central processing unit having a processor and a memory, and selected from one of a desktop computer, a laptop computer, a personal digital assistant, a networked computer terminal, and a server, process environment data related to the specific process control environment[[,]] in which at least one of the plurality of process control instruments is potentially to be used;~~via a computer device~~
storing the received process control environment data in a memory associated with the computer device in a manner that allows the process control environment data to be accessed at a later time;

receiving, via the computer device, device data indicating device-specific operating characteristics for each of the plurality of process control instruments and storing the received device data in a memory associated with the computer device in a manner that allows the device data to be accessed at a later time;

enabling a user to select a source for at least one of the device data and the process environment data, from which source the computer device receives the at least one of the device data and the process environment data, and wherein the selected source for the at least one of the process environment data and the device data is one of a user input, a memory, and a database;

storing, in a memory associated with the computer device, a modeling routine to model, using the device data, the operation of each of the plurality of process control

instruments within the specific process control environment defined by the received process environment data;

using the computer device, the modeling routine, the received process environment data and the device data to model the operation of each of the plurality of process control instruments within the specific process control environment defined by the received process environment data;

determining, ~~from~~ based on the modeled operation of each of the plurality of process control instruments, using the computer device, one or more performance characteristics for each of the plurality of process control instruments indicating the modeled performance of each of the plurality of process control instruments when used in the specific process control environment and storing the one or more performance characteristics in a memory associated with the computer device in a manner that allows the one or more performance characteristics to be accessed at a later time; [[and]]

retrieving the one or more stored performance characteristics from the memory associated with the computer device, to allow display to a user of the one or more performance characteristics; and

displaying, via a display device, the one or more performance characteristics for each of the plurality of the process control instruments simultaneously via the computer device to enable a user to simultaneously view the one or more performance characteristics for each of the plurality of process control instruments in a manner that allows a user to choose, from among the plurality of process control instruments, the process control instrument best suited for the specific process control environment in which the process control instrument is to be used.

2. (Canceled)

3. (Canceled)
4. (Canceled)
5. (Original) The method of claim 1, where the computer device is a web-enabled device.
6. (Original) The method of claim 1, wherein the plurality of process control instruments are each flow meters.
7. (Original) The method of claim 1, wherein at least one of the plurality of process control instruments is a Coriolis type of flow meter.
8. (Original) The method of claim 1, wherein at least one of the plurality of process control instruments is a vortex type of flow meter.
9. (Original) The method of claim 1, wherein at least one of the plurality of process control instruments is a magnetic type of flow meter.
10. (Original) The method of claim 1, wherein at least one of the plurality of process control instruments is a differential pressure type of flow meter.
11. (Original) The method of claim 1, wherein at least one of the plurality of process control instruments is a thermal mass type of flow meter.

12. (Original) The method of claim 1, wherein at least one of the plurality of process control instruments is an ultrasonic type of flow meter.

13. (Currently Amended) The method of claim 1, wherein receiving the process environment data related to the specific process control environment includes ~~entering~~ enabling a user to enter the process environment data through a keyboard of the computer device.

14. (Canceled)

15. (Canceled)

16. (Previously Presented) The method of claim 1, wherein determining the one or more performance characteristics includes calculating the one or more performance characteristics of each of the plurality of process control instruments over an entire range of operation of each process control instrument.

17. (Previously Presented) The method of claim 16, wherein displaying involves displaying performance characteristics of each of the plurality of process control instruments in a graphical manner.

18. (Previously Presented) The method of claim 17, wherein displaying provides a comparison between installed performance and performance at reference conditions.

19. (Previously Presented) The method of claim 1, wherein the process control instruments are flow meters and wherein displaying provides performance data as a function of flow rate from a maximum level to a minimum level.

20. (Previously Presented) The method of claim 1, wherein determining the one or more performance characteristics further includes calculating the size of the process control instrument needed to satisfy the process control application.

21. (Currently Amended) The method of claim 1, further including saving the received process environment data in a memory of the computer device.

22. (Currently Amended) The method of claim 21, further including assigning an electronic tag to the saved process environment data to facilitate later retrieval.

23. (Currently Amended) The method of claim 1, wherein receiving the process environment data includes receiving a selection of the plurality of process control instruments to be used in the analysis.

24. (Previously Presented) The method of claim 1, wherein the process control instruments are each flow meters, and wherein the determining the one or more performance characteristics includes calculating flow meter accuracy as a continuous function of flow rate.

25. (Previously Presented) The method of claim 1, wherein the process control instruments are each flow meters, and wherein determining the one or more performance characteristics includes calculating straight pipe requirements for each of the flow meters.

26. (Previously Presented) The method of claim 1, wherein the process control instruments are each flow meters, and wherein determining the one or more performance characteristics includes calculating fluid pressure losses for each of the flow meters.

27. (Previously Presented) The method of claim 26, wherein determining the one or more performance characteristics includes the calculation of pressure loss due to pipe fittings.

28. (Original) The method of claim 27, wherein the calculated performance characteristics are displayed graphically.

29. (Original) The method of claim 28, wherein the graphical display includes pictorial representations of pipe, pipe fittings, and flow meters.

30. (Previously Presented) The method of claim 1, wherein determining the one or more performance characteristics involves calculating installed costs associated with the plurality of process control instruments.

31-50. (Canceled)